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AMENDMENT

IN THE CLAIMS:

1. (CURRENTLY AMENDED) A method for making a heat transfer component ~~and using the heat transfer component~~ comprising the steps of:

~~forming a plurality of cells of a norbornene polymer by melting said norbornene polymer;~~
and

~~hot extruding said the norbornene polymer to form at least one an extruded tube;~~

~~expanding the extruded tube to form an expanded tube; and~~

~~using said cells the expanded tube as part of a cell of the said heat transfer component;~~

~~producing combustion products with a burner;~~

~~flowing one of the combustion products and a fluid through the cell;~~

~~flowing the other of the combustion products and the fluid around the cell; and~~

~~exchanging heat between the combustion products and the fluid.~~

2. (CANCELLED)

3. (CURRENTLY AMENDED) The method as recited in claim 1 wherein ~~the step of the expanded tube comprises forming each of said plurality of cells includes extruding a first extruded tube and a second extruded tube, the method further comprising expanding said first extruded tube with air in a first mold to form a first expanded tube and expanding said second extruded tube with air in a second mold to form a substantially u-shaped second expanded tube, wherein the step of expanding includes expanding each of the first expanded tube and the substantially u-shaped second expanded tube with air in a mold.~~

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4. (CURRENTLY AMENDED) The method as recited in claim 3 wherein ~~said~~the first expanded tube and ~~said~~the substantially u-shaped second expanded tube each include a plurality of tube grooves formed by expanding ~~said~~the first extruded tube and ~~said~~the substantially u-shaped second extruded tube in ~~said~~ first ~~the~~ mold and ~~said~~ second mold, respectively, each including ~~which~~ includes a plurality of mold grooves on an inner surface of ~~said~~ first mold and ~~said~~ second ~~the~~ mold.

5. (CURRENTLY AMENDED) The method as recited in claim 3 wherein ~~said~~the first expanded tube includes an end and ~~said~~the substantially u-shaped second expanded tube includes a pair of ends ~~and an opening is defined between the pair of ends~~, and the method further comprises the step of attaching ~~said~~the end of ~~said~~the first expanded tube and ~~said~~the pair of ends of ~~said~~the substantially u-shaped second expanded tube to a flange to form ~~one of said cells~~the cell, and ~~said~~ first expanded tube is located in ~~an~~the opening of ~~said~~ u-shaped second expanded tube that is defined between ~~said~~ pair of ends, and a flue gas passage containing a flue gas is defined between ~~said~~the first expanded tube and ~~said~~the substantially u-shaped second expanded tube.

6. (CURRENTLY AMENDED) The method as recited in claim 5 wherein ~~said~~the flange is made of ~~the~~ norbornene polymer, and the step of attaching ~~said~~the end and ~~said~~the pair of ends to ~~said~~the flange includes thermally adhering ~~said~~the first end and ~~said~~the pair of ends to ~~said~~the flange.

7. (CURRENTLY AMENDED) The method as recited in claim 5 wherein ~~said~~the flange is made of metal, and the step of attaching ~~said~~the first end and ~~said~~the pair of ends to ~~said~~the flange includes heating and flaring ~~said~~the first end and ~~said~~the pair of ends.

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8. (CURRENTLY AMENDED) The method as recited in claim 12 wherein the step of forming ~~each of said the cell~~ plurality of cells includes expanding ~~said at least one the~~ extruded tube with air in a mold to form a substantially w-shaped expanded tube and attaching a pair of ends of ~~said the substantially w-shaped expanded tube~~ to a flange to form ~~one of said cell~~ the cell, and a ~~five gas passage being~~ is defined in ~~said the~~ expanded tube.

9. (CURRENTLY AMENDED) The method as recited in claim 12 wherein ~~said at least one extruded tube~~ the cell is employed in a shell and tube heat exchanger.

10-20. (CANCELLED)

21. (CURRENTLY AMENDED) The method as recited in claim 3 wherein ~~said first the mold~~ ~~has~~ includes a bottom portion and a top portion, the method further including the steps of positioning ~~said first the~~ extruded tube in ~~said the~~ bottom portion of ~~said first the~~ mold and placing ~~said the~~ top portion on ~~said the~~ bottom portion to retain ~~said first the~~ extruded tube therebetween.

22. (CURRENTLY AMENDED) The method as recited in claim 5 wherein ~~said the~~ substantially u-shaped second expanded tube is continuous between ~~said the~~ pair of ends.

23. (CANCELLED)

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24. (CURRENTLY AMENDED) A method for making a heat transfer component comprising the steps of:

forming a ~~plurality of cells~~ cell of a norbornene polymer, each of ~~said cells~~ the cell including a first expanded tube and a second substantially u-shaped expanded tube having a pair of ends, and an opening is defined between ~~said~~ the pair of ends, ~~said~~ the substantially second u-shaped expanded tube is continuous between ~~said~~ the pair of ends, and ~~said~~ wherein the first tube is located in ~~said~~ the opening; and

using ~~said plurality of cells~~ the cell as part of ~~said~~ the heat transfer component;

~~producing combustion products with a burner;~~

~~flowing one of the combustion products and a fluid through the cell;~~

~~flowing the other of said combustion products and the fluid around the cell; and~~

~~exchanging heat between the combustion products and the fluid in the cell.~~

25. (CANCELLED)

26. (CURRENTLY AMENDED) The method as recited in claim 24 further comprising the step of attaching an end of ~~said~~ the first expanded tube and ~~said~~ the pair of ends of ~~said~~ the substantially u-shaped second expanded tube to a flange to form one of ~~said plurality of cells~~ the cell.

27. (CURRENTLY AMENDED) The method as recited in claim 26 wherein ~~said~~ the flange is made of ~~a~~ the norbornene polymer, and the step of attaching ~~said~~ the end and ~~said~~ the pair of ends to ~~said~~ the flange includes thermally adhering ~~said~~ the first end and ~~said~~ the pair of ends to ~~said~~ the flange.

28. (NEW) The method as recited in claim 1 wherein the fluid is air and the cell comprises a first cell and a second cell, and the combustion products flow in the cell and the air flows between the first cell and the second cell.

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29. (NEW) The method as recited in claim 1 wherein said heat transfer component is a condensing heat exchanger.

30. (NEW) The method as recited in claim 1 wherein the burner burns air and natural gas to produce the combustion products.

31. (NEW) The method as recited in claim 1 further including the step of pulling the combustion products through the heat transfer component.

32. (NEW) The method as recited in claim 1 wherein the first expanded tube includes an end and the substantially second expanded tube includes a pair of ends and an opening is defined between the pair of ends, wherein the first expanded tube is located in the opening, and the method further comprises the step of attaching the end and the pair of ends to a flange made of the norbornene to form the cell by thermally adhering the first end and the pair of ends to the flange, and wherein the first expanded tube and the substantially u-shaped second expanded tube include a plurality of tube grooves formed by expanding the first extruded tube and the substantially u-shaped second extruded tube in the mold, and the mold includes a plurality of mold grooves on an inner surface of the mold.

33. (NEW) The method as recited in claim 5 wherein the fluid flows in the passage and the combustion products flow in the cell.

34. (NEW) The method as recited in claim 1 wherein the fluid is air